

AMENDMENTS TO THE CLAIMS

The claims in this listing will replace all prior versions, and listings, of claims in the application.

1-3. (Cancelled)

4. (Currently Amended) The An apparatus for controlling an operation of a reciprocating compressor, the apparatus of claim 1, further comprising:

a reactor connected to a motor of the reciprocating compressor and configured to cut off a surge current applied to the motor at an initial stage by increasing inductance; and

an overcurrent cutting-off device connected in series to the reactor for increasing an inductance in series and for cutting and configured to cut off an overcurrent applied to the motor,

wherein the reactor and the overcurrent cutting-off device are connected in parallel to a capacitor that countervails an inductance of a coil wound in the motor of the reciprocating compressor.

5. (Currently Amended) An apparatus for controlling an operation of a reciprocating compressor comprising:

a voltage detecting unit for detecting a voltage applied to the reciprocating compressor according to the variation of a stroke of the reciprocating compressor;

a current detecting unit for detecting a current applied to the reciprocating compressor according to the variation of a stroke of the reciprocating compressor;

a microcomputer for calculating a stroke based on a voltage value detected by the voltage detecting unit and a current value detected by the current detecting unit, comparing the calculated stroke and a stroke reference value, and generating a switching control signal according to the comparison result;

a power supply unit for supplying a stroke voltage to the reciprocating compressor by on-off controlling AC power supplied to the reciprocating compressor with an internal triac controlled by the switching control signal generated by the microcomputer;

~~a relay connected in parallel to a capacitor that countervails an inductance of a coil wound in a motor of the reciprocating compressor and for cutting configured to cut off an overcurrent applied to the motor; and~~

~~a reactor connected to the relay in series and for cutting configured to cut off a surge current which is applied to the motor at an initial stage, by increasing an inductance,~~

wherein:

the relay is connected in series to the reactor; and

the relay and the reactor are connected in parallel to a capacitor that countervails an inductance of a coil wound in a motor of the reciprocating compressor.

6-8. (Cancelled)

9. (Currently Amended) An apparatus for controlling an operation of a reciprocating compressor having a capacitor that countervails an inductance of a coil wound in a motor of the reciprocating compressor for controlling cooling capacity further comprising:

~~a positive temperature coefficient thermistor connected to the capacitor in parallel and for cutting configured to cut off an overcurrent generated when the reciprocating compressor is initiated at an initial stage; and~~

~~a reactor connected to the positive temperature coefficient thermistor in series and for cutting configured to cut off a surge current generated when the reciprocating compressor is initiated at the initial stage, by increasing an inductance,~~

wherein the positive temperature coefficient thermistor and the reactor are connected in parallel to the capacitor.

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10-11. (Canceled)